Remarks

Claims 3-6, 9-11, 16-19, 22-24, 26-29, and 31-32 were pending in the above-identified application. No claims have been amended, and no claims have been added or cancelled. Claims 3-6, 9-11, 16-19, 22-24, 26-29, and 31-32 therefore remain pending and under examination. Applicants respectfully request reconsideration and allowance of the claims in view of the remarks provided herein.

Claim Rejections under 35 U.S.C. §102

Claims 3-6, 9-11, 16-19, 22-24, 26-29 and 31-32 were rejected under 35 U.S.C. §102(b) as being anticipated by Vorozhtsov *et al.* (Chem Abstract 2002). More specifically, it has been asserted that Vorozhtsov *et al.* teach the same compounds, compositions, and methods claimed by Applicants. Applicants respectfully traverse the rejection.

Vorozhtsov *et al.* do not teach the same compounds or compositions claimed by Applicants. Vorozhtsov *et al.* teach phthalocyanine derivatives in which the axial ligand is defined as follows: PcM[$CH_2P(O)(OR)_2$]n; wherein R = H, alkyl. Applicants claims, on the other hand, recite phthalocyanine derivatives in which the axial ligand is defined as $(G)_aY[(OSi(CH_3)_2(CH_2)_bN_c(R')_d(R'')_e)_fX_g]_p$. Comparison of these axial ligands reveals at least two significant differences. First, the axial ligand of Vorozhtsov *et al.* must include a phosphate group ($P(O)(OR)_2$), which cannot be present in Applicants' axial ligand, as claimed. Second, Applicants' claims require that an amine group ($N_c(R')_d(R'')_e$) be present in the axial ligand, whereas the axial group of Vorozhtsov *et al.* does not include an amine group. Because of these differences, Applicants respectfully assert that Vorozhtsov *et al.* do not teach the phthalocyanine compounds claimed by Applicants.

Vorozhtsov *et al.* also do not teach the compositions claimed by Applicants. Applicants have claimed a pharmaceutical composition for topical administration, and a method for treating epithelial cancer or other epithelial cell abnormalities. Vorozhtsov *et al.*, on the other hand, teaches intravenous administration, which uses a systemic formulation rather than topical

formulation. Because Vorozhtsov *et al.* do not teach the same compounds or compositions claimed by Applicants, Applicants respectfully request that the rejection of claims 3-6, 9-11, 16-19, 22-24, 26-29 and 31-32 for being anticipated by Vorozhtsov *et al.* be withdrawn.

Claims 3-6 and 9-11 were also rejected under 35 U.S.C. §102(b) as being anticipated by Capraro *et al.* (US Patent 5,358,940). More specifically, it has been asserted that Capraro *et al.* teach the same compounds, compositions, and methods claimed by Applicants. Applicants respectfully traverse the rejection.

Capraro *et al.* teach compounds that do not fall within the scope of Applicants claims. Again, the axial ligand is the key factor distinguishing the compounds. As with Vorozhtsov *et al.*, the axial ligands used by Capraro *et al.* do not include an amine group, which is required to be present in the axial ligand present in the compounds claimed by Applicants. Rather, Capraro *et al.* teach phthalocyanine compounds in which the axial ligand includes a long alkoxy chain that ends with a large alkyl group such as a cholesterol derivative. The axial ligands of Capraro *et al.* are shown in formulas II and III in column 2. Because the compounds of Capraro *et al.* are different from Applicants' claimed compounds, Applicants respectfully request that the rejection of claims 3-6 and 9-11 for being anticipated by Carpraro *et al.* be withdrawn.

Claim Rejections under 35 U.S.C. §103

Claims 1-33 were rejected under 35 U.S.C. §103(a) as being obvious over Vorozhtsov *et al.* More specifically, it is asserted that Vorozhtsov *et al.* disclose a generic group of phthalocyanine compositions, and that the claims differ from the reference merely be reciting specific species and a more limited genus. Applicants respectfully traverse the rejection.

Vorozhtsov *et al.* describe phthalocyanine compounds that include an axial ligand that is significantly different from that recited by Applicants' claims, for the reasons already described. Accordingly, Applicants claims are not merely to a specific species or more limited genus of Vorozhtsov *et al.*, but rather recite a distinct and separate set of compounds. Because of the

differences between these compounds and those of Vorozhtsov *et al.*, one of skill in the art would not have a reasonable expectation that the compounds claimed by Applicants would have similar properties. Furthermore, tests of Applicants' compounds have shown that these compounds exhibit improved activity as a result of including the amine that is lacking in the compounds of Vorozhtsov *et al.* See for example paragraph [0040] which states that "in the compounds and compositions of the present invention, axial ligands carrying or terminating in an amine function or a quaternary ammonium function are attached to the central metal. As a result, it is believed that these more complex axial ligands give the new phthalocyanine compositions the potential to bind to the various species that assist in transporting the composition to and from their targets, as well as enhance the potential for the phthalocyanines to bind to their specific target cells." See also the discussion of testing compounds in paragraphs [0166] and [0167] of the published application, which notes that "both tertiary and quaternary amines appear to be efficacious structures" and that "tertiary and quaternary amines may be an important class of structures to be explored." Accordingly, because Applicants compounds are distinct from those of Vorozhtsov *et al.*, and provide unexpectedly good results, Applicants respectfully request that the rejection of claims 1-33 as being obvious in view of Vorozhtsov *et al.* be withdrawn.

Claims 3-6 and 9-11 were also rejected under §103(a) as being obvious over Capraro *et al.* Again, as with Vorozhtsov *et al.*, it is asserted that the claims differ from the reference only by reciting specific species and a more limited genus than that described by Capraro *et al.* Applicants respectfully disagree for the same reasons given above with regard to Vorozhtsov *et al.* Namely, the compounds of Capraro *et al.* do not overlap with the claimed compounds of the present invention, and the presence of an amine functionality and the benefits associated with that amine functionality render the compounds of the present invention non-obvious in view of Capraro *et al.* Accordingly, Applicants respectfully request that the rejection of claims 3-6 and 9-11 as being obvious over Capraro *et al.* be withdrawn.

In view of the above remarks, Applicants submit that claims 3-6, 9-11, 16-19, 22-24, 26-

29, and 31-32 are in condition for allowance, and respectfully requests same. The Examiner is asked to contact the undersigned at the phone number listed below if there are any questions regarding the remarks provided herein.

Respectfully submitted,

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